

## TWO CUBAN NOVELTIES IN *XYRIS*

Among the *Xyris* kindly loaned by the curators of F, NY, MO, and US for a study of North American Xyridaceae were materials of two species of undescribed *Xyris*, both from the Isle of Pines. From descriptions of the white sand savannas of that island, once so frequently visited by such collectors as N. L. Britton, E. P. Killip, and P. Wilson, it is easily seen that it is ideal *Xyris* habitat, having nearly all of the *Xyris* species endemic to Cuba as well as most of those found both in southern Florida and along the Mosquito Coast and Belize. It is seen that western Cuba is perhaps the most significant floristic connector between the Florida peninsula and Mesoamerica for not only Xyridaceae but for Eriocaulaceae and many genera of sedges as well. Thus these two novelties are presented as but a small part of what promises to be a considerable updating as the new *Flora de Cuba* progresses and as Cuban-based botanists continue the work.

### *Xyris curassavica* Kral & Urquiola, sp. nov. TYPE:

Cuba. Isle of Pines: vicinity of Los Indios, 13 Feb. 1916, N. L. Britton, E. G. Britton & P. Wilson 14219 (holotype, NY; isotypes, CM, F, MO, US). Figure 1.

Planta perennis, denscespitosa, laxa, 1.5–4 dm alta, caulis contractis, radicibus gracilibus fibrosis. Folia vulgo erecta vel leviter expansa, torta, (5–)10–20(–25) cm longa; vaginae integrae, laminis 4–5-plo breviores, lampro-glandaceae vel roseolae, marginibus in laminas gradatim convergentibus, ad apicem breviligulam (usque ad 2 mm longam) fascientibus, raro eligulatis; laminae valde compressae, anguste lineares, pallide luteo-virides, 0.5–2 mm latae, ad apicem subulatae, raro paucitrichomatiferae, marginibus integris, leviter incrassatis, raro distante papillosis, paginis glabris, longitudine valde 1–3-nervatis. Vaginae scaporum proximale lampro-glandaceae, folia principalia superantia, brevilaminatae. Scapi linearifiliformes, flexuosi, torti, apicem versus in sectione transversali teretes vel ovati, 1–3(–4)-costati, ca. 0.5 mm crassi, costis glabris vel remote scabropapillosis. Spicae late ovoideae vel subglobosae, 5–7(–10) mm longae, pauciflorae, laxe spiraliter imbricatae, pallide lampro-ferrugineae, rotundatae, ecostatae, integrae; area dorsali distincta vel indistincta, ovata, pallide viridia; bracteae steriles 2–3, fertilibus breviores; bracteae fertiles vulgo ovatae, 4.5–5 mm longae, anguste rotundatae, ad marginem tenues, integri, tum erosae. Sepala lateralia libera, subaequilatera, elliptica, curvata, 4–4.5 mm longa; ala carnalis lata et firma, a basi ad apicem scabrido-papillosa. Laminae petalorum late obovatae, luteolae, ca. 4.5 mm longae, apice anguste rotundatae, erosae. Antherae lanceolato-oblongae, ca. 1.5 mm longae, valde bifidae et sagittatae, filamentis ca. 0.5 mm longis.

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Staminodia bibrachiata, brachiis apice sparsim penicillatis. Capsula ellipsoidea, ca. 3 mm longa; placenta marginalis. Semina anguste ovoidea vel curtocylindracea, 0.5–0.7 mm longa, succinea, translucida, apiculata, longitudine valde et irregulariter anastomosostata.

Densely cespitose, soft-based perennial 1.5–4 dm high, the stems contracted, the roots slender-fibrous. Leaves mostly erect to slightly spreading, twisted, (5–)10–20(–25) cm long; sheaths  $\frac{1}{4}$ – $\frac{1}{2}$  as long as blades, entire, a lustrous tan or red-brown, tapering gradually from the clasping base, multistate and carinate to the blade, there with a scarious, rounded ligule to 2 mm long; blades strongly flattened, narrowly linear, pale yellow-green, 0.5–2 mm wide, apically subulate and sometimes with a few coarse trichomes, the edges entire and slightly thickened, sometimes remotely papillate, the surfaces longitudinally strongly 1–3-nerved, often papillate or rugulose-papillate proximally. Scape sheaths lustrous tan proximally, open and short-bladed distally, shorter than principal leaves. Scapes linear-filiform, flexuous, twisted, distally subterete or oval in cross section, 1–3(–4)-costate, ca. 0.5 mm thick, the costas smooth or distantly scabro-papillose. Spikes broadly ovoid to subglobose, 5–7(–10) mm long, the bracts few, loosely spirally imbricate, lustrous pale red-brown with distinct or indistinct ovate pale green (when young) dorsal areas, the backs convex, toward apex low-carinate; sterile bracts 2–3, smaller than the fertile bracts and grading into them, the lowest oblong, strongly carinate; fertile bracts mostly ovate, 4.5–5 mm long, the apex narrowly rounded, the margins thin, entire or aging erose. Lateral sepals free, subequilateral, elliptic, curvate, 4–4.5 mm long, the broad keel firm, scabro-papillate from near base to acute apex. Petal blades broadly obovate, yellow, ca. 4.5 mm long, the narrowly rounded apex erose. Anthers lance-oblong, ca. 1.5 mm long, deeply bifid and sagittate, on stout filaments ca. 0.5 mm long. Staminodia bibrachiate, the flat, narrow branches sparsely penicillate. Capsule ellipsoid, ca. 3 mm long, the placentation marginal with placentas extending from base to near summit. Seeds lance-ovoid to short-cylindric, 0.5–0.7 mm long, apiculate, pale red-brown, translucent, longitudinally distinctly but irregularly anastomosing-ribbed.

Frequent in sand savannas, Isle of Pines, Cuba.




FIGURE 1. *Xyris curassavica* (Alain & Killip 2194).—a. Habit sketch.—b. Leaf apex.—c. Sector of mid-blade.—d. Leaf blade-sheath junction.—e. Apex of leaf sheath.—f. Leaf base.—g. Spike.—h. Fertile bract.—i. Lateral sepal.—j. Petal blade and stamen.—k. Staminode.—l. Stylar apex.—m. Capsule, one valve removed, showing placentation.—n. Seed.

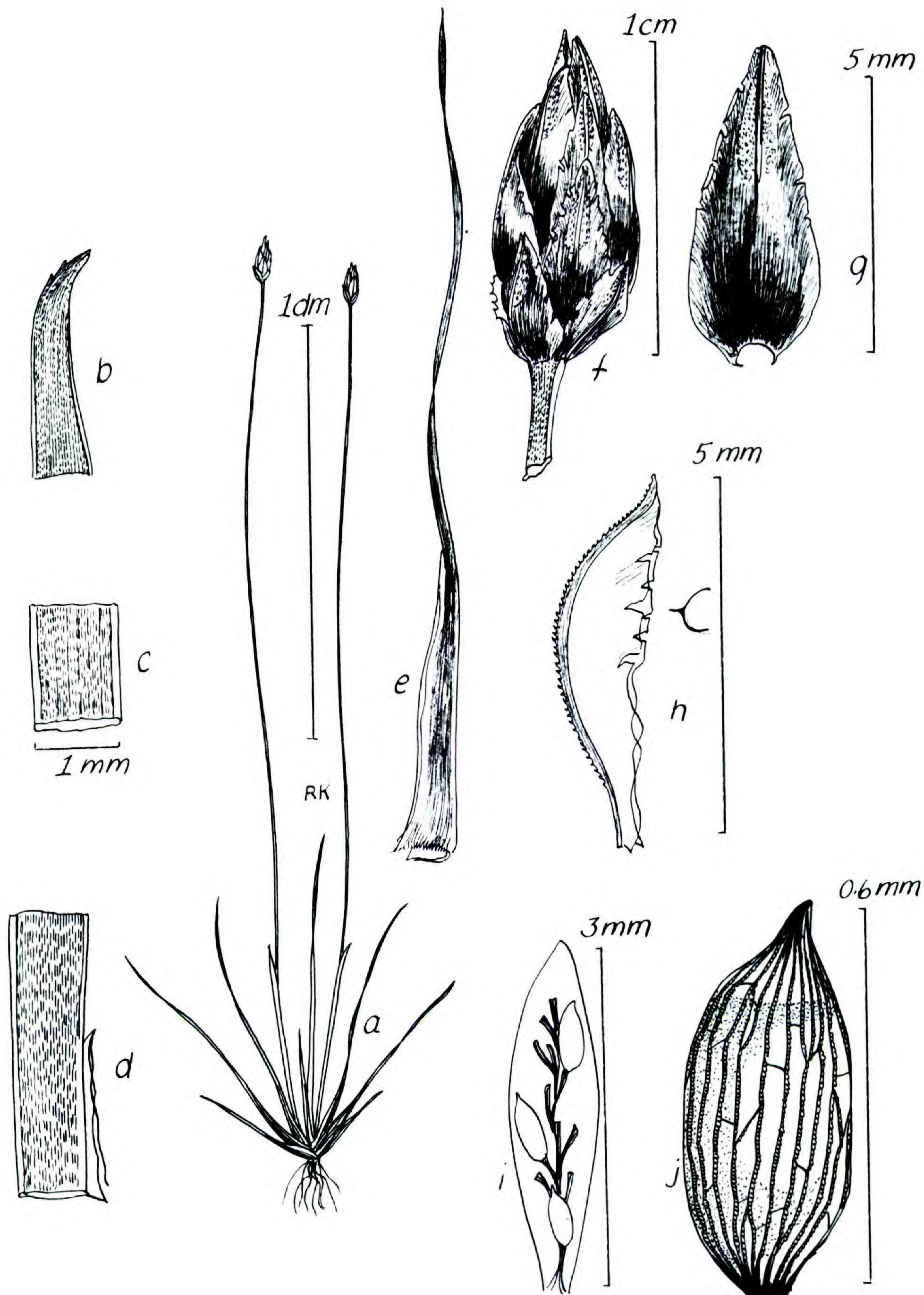


FIGURE 2. *Xyris paleacea* (Leon & Victorin 17823).—a. Habit sketch.—b. Leaf apex.—c. Sector of leaf at mid-blade.—d. Leaf blade-sheath junction.—e. Leaf.—f. Spike.—g. Fertile bract.—h. Lateral sepal.—i. Capsule valve with placenta.—j. Seed.

*Additional specimens examined.* CUBA. ISLE OF PINES: Los Indios, white sand sabanas, 27 Dec. 1951, Alain & Killip 2194 (US); Los Indios, sabanas, 4 Feb. 1953, Killip 42612 (US); Los Indios, sabanas, 22 Feb. 1953, Killip 42868 (GH, NY); Los Indios, savannas, 22 Feb. 1953, Killip 42873 (CAS, F, GH, NY, U, US).

This species most resembles *X. bicarinata* Griseb., another Cuban endemic, in general habit and somewhat in leaf but has thinner, paler leaf bases; flatter leaf blades; more slender scapes; and broader spikes with thinner fertile bracts less

tending to spread and recurve. The aspect is less robust and smoother.

**Xyris paleacea** Kral & Urquiola, sp. nov. TYPE:

Cuba. Pinar del Río: Laguna de Sta. María, W of Sn. Luis, May 1940, H. Leon & M. Victorin 17823 (holotype, US). Figure 2.

Planta solitaria vel parum cespitosa, annua vel perennis, usque ad 3 dm alta, caulis contractis, radicibus gracilibus fibrosis. Folia leviter flabellate expansa, 4–6 cm longa; vaginæ integrae, laminis 2–3-plo breviores, carinatae, lampro-ferrugineae, marginibus in laminas gradatim convergentibus, ad apicem breviligulam rotundatum fascientibus, aut eligulatis; laminæ compressæ, leviter tortæ, 0.5–1.5 mm latae, ad apicem anguste acutæ, leviter incrassatae, marginibus pallidis incrassatis, papillatis vel leviter tuberculatis, paginis glabris, longitudine leviter striatis. Vaginæ scapo-rum brunneolæ, nitidae, multicostatae, folia principalia superantes, brevilaminae. Scapi filiformes, apicem versus leviter compressi, ca. 0.5 mm lati, distincte bicostales, costis pallidis glabris aut papillosum. Spicae lanceolato-ovatae, paucifloræ, ca. 1 cm longæ, acutæ; bracteæ spiraliter laxè imbricatae, rufo-brunneolæ, laceratae; area dorsalis lanceolata, pallide viridis; bracteæ steriles vulgo 2, fertilibus breviores; bracteæ fertiles lanceolato-ovatae, 5–6 mm longæ, apicem versus anguste cucullato-incurvatae, valde carinatae. Sepala lateralia libera, subaequilatera, pallide fusca, valde curvata, 4.5–5 mm longa, acuta; ala carinalis firma, angusta, a basi ad apicem scabridula. Petala et stamens non visa. Capsula ellipsoidea, ca. 3 mm longa; placenta marginalis. Semina ellipsoidea, ca. 0.6 mm longa, succinea, apiculata, translucida, longitudine valde et irregulariter anastomoso-costata.

Solitary or in small tufts, annual or short-lived perennial to 3 dm high, the stems contracted, the roots filiform-fibrous. Leaves flabellately spreading-ascending, 4–6 cm long; sheaths entire,  $\frac{1}{3}$ – $\frac{1}{2}$  as long as the blades, carinate, lustrous red-brown, narrowing gradually from the dilated, clasping base to the blade, there either with a short, scarious, rounded ligule or merging with blade base; blades green-brown or maroon, flattened, slightly twisted, 0.5–1.5 mm wide, the apex incurved,

narrowly acute, slightly thickened, papillate or tuberculate-edged, the margins pale, incrassate, smooth or papillose, the surfaces smooth, longitudinally striate-nerved. Scape sheaths shorter than principal leaves, at base tubular, lustrous brown, multicostate, opening distally, short-bladed. Scapes filiform, distally slightly compressed, ca. 0.5 mm wide, distinctly bicostate, the costas pale, smooth or papillate. Spikes lance-ovoid, ca. 1 cm long, acute, of a few, loosely spirally imbricate, red-brown, lacerate bracts with pale green, papillose, subapical, lanceolate dorsal areas; sterile bracts usually 2, oblong, strongly carinate, 3.5–4 mm long; fertile bracts lance-ovate, 5–6 mm long, toward the narrow, subcucullate tip strongly carinate, the borders thin, becoming strongly lacerate. Lateral sepals 4.5–5 mm long, free, subequilateral, strongly curved, acute, the thick, narrow keel scabrid from near base to tip. Flowers and stamens not seen. Capsule ellipsoid, ca. 3 mm long, the placentation marginal, the placentas extending from base to near tip. Seeds ellipsoid, ca. 0.6 mm long, amber, apiculate, longitudinally strongly but irregularly anastomosing-ribbed.

Endemic to pine savanna, Pinar del Río, Cuba.

This species, thus far known only from the type specimen, appears allied to *X. brevifolia* Michaux and *X. flabelliformis* Chapman and is distinguished from them by a combination of (often) longer, pale-incrassate-bordered leaves; overall narrower spike outline with narrower, lacerate-bordered fertile bracts; and slightly longer and differently sculptured seeds.

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